Town of
AMHERST Massachusetts

Office of the Town Manager
Town Hall
4 Boltwood Avenue
Amherst, MA 01002

Laurence Shaffer, Town Manager
Phone: (413) 259-3002
Fax: (413) 259-2405
Email: townmanager@amherstma.gov

February 5, 2010

Robert C. Holub, Chancellor
Office of the Chancellor
University of Massachusetts Amherst
374 Whitmore Building
Amherst, MA 01003

Dear Bob:

Thank you for your consideration of the proposal to barter electricity for discounted civil services. I continue to believe that there is an opportunity to achieve this within the Department of Public Utility regulations.

I would like to however talk about taking excess steam from the plant and converting it to power on our site. With your encouragement that this may be possible, I will continue to explore that option.

I believe the Town and the University has many opportunities for collaboration. I look forward to working with you and your team to explore those opportunities completely and to implement when feasible.

Thank you for your kind consideration.

Sincerely,

Larry

Laurence Shaffer
Town Manager

UNIVERSITY OF MASSACHUSETTS
AMHERST

374 Whitmore Administration Building
181 Presidents Drive
Amherst, MA 01003-9313

OFFICE OF THE CHANCELLOR

voice: 413.545.2211
fax: 413.545.2328
www.umass.edu

January 22, 2010

Laurence Shaffer, Town Manager
Town Hall
4 Boltwood Avenue
Amherst, MA 01002

Re: Barter of electricity for Sewer Services

Dear Larry:

Thank you for your interesting proposal to barter the sale of electricity for discounted sewer services. It is certainly an interesting idea and our utility staff have reviewed the potential with our consultants and their attorneys since becoming a DPU recognized supplier is complicated and has many implications.

The real issue, however, is that we will not be producing enough excess electricity to make it worthwhile to set this in motion. Our analysis shows that even with the additional turbine we will soon install, there will be very few times in the year when we would be generating excess capacity. January mid term and early summer are the only times of the year in which this might be possible. During the other 80% of the year, the campus will still need to supplement our own output with electricity purchased from WMECo.

If you would like to discuss the issue further, please fell free to contact Joyce Hatch, Vice Chancellor for Administration and Finance.

Sincerely,

Robert C. Holub
Chancellor, UMass Amherst

Cc: Joyce Hatch, Vice Chancellor, Administration and Finance, UMass
Tom Milligan, Executive Vice Chancellor, University Relations, UMass
Juanita Holler, Associate Vice Chancellor, Facilities and Campus Services, UMass
John Musante, Assistant Town Manager/Finance Director
Guilford Mooring, Superintendent, Department of Public Works
Bob Pariseau, Director, Water Resources, WW Treatment Plant

Town of
AMHERST Massachusetts

Office of the Town Manager
Town Hall
4 Boltwood Avenue
Amherst, MA 01002

Laurence Shaffer, Town Manager
Phone: (413) 259-3002
Fax: (413) 259-2405
Email: townmanager@amherstma.gov

November 30, 2009

Robert C. Holub, Chancellor
Office of the Chancellor
University of Massachusetts Amherst
374 Whitmore Building
Amherst, MA 01003

Re: Town/University Partnership -- Barter of Electricity for Sewer Services

Dear Chancellor Holub:

The Town of Amherst proposes that the University of Massachusetts Amherst trade electricity for sewer services.

The Town of Amherst provides sewer treatment services to the University of Massachusetts Amherst. The Town's Wastewater Treatment Plant is located contiguous to University property on 100 Mullins Way in Hadley. In 2009, the University paid one million two hundred forty four and seven hundred ninety six ($1,244,796.00) dollars, or thirty five (35%) percent of the total revenue coming into the Town of Amherst sewer treatment operation.

One of the largest expenses for the Town of Amherst's Wastewater Treatment Plant is electricity. In 2009, one million three hundred thirty one thousand and one hundred fifty four (1,331,154) kilowatts were used at a cost of two hundred thousand two hundred twenty eight ($200,228.60) dollars and sixty cents. Given that the University funds thirty five (35%) percent of all expenses of the Wastewater Treatment Plant, approximately seventy one thousand ($71,000.00) dollars of the total two hundred thousand ($200,000.00) dollar cost for electricity for the Wastewater Treatment Plant was borne by the University at a kilowatt rate of just over fifteen ($.15) cents. Given that the University can produce a kilowatt at approximately four and one half ($.045) cents, and given the proximity of the wastewater treatment plant to the Cogeneration Plant, allow me to propose the following.

The Town of Amherst would grant to the University a credit for sewer cost of one hundred thousand ($100,000.00) dollars. The credit would be applied to its annual bill which is approximately, one million two hundred thousand ($1,200,000.00) dollars. The credit would reduce the University's sewer costs by just over eight (8%) percent. In return for that sewer credit, the Town of Amherst would receive electricity at no cost from the University. Given that the Town would project to use one million three hundred thousand (1,300,000) kilowatts, and

assuming that the cost to produce and transmit a kilowatt at the University is four and a half ($.045) cents, the cost to the University in electricity would be sixty thousand ($60,000.00) dollars.

The Town is suggesting that no cash exchange hands. However, the University can produce electricity efficiently and trade that commodity for sewer treatment services provided by the Town. Consequently, in this arrangement, one hundred thousand ($100,000.00) dollars sewer credit from the Town to the University would buy cheaper electricity which would benefit both the Town users and the University users.

I have attached a letter from Town Counsel, Joel Bard from Kopelman and Paige. He has had an opportunity to speak with the Department of Public Utilities (DPU). Attorney Bard believes that the DPU has jurisdiction over this question and DPU indeed would consider UMass a "supplier" of electricity thereby allowing the Town to receive electricity produced by the University.

Further, I have attached information on water and sewer consumption that might be helpful in your analysis. I hope to be able to give you or your representative a call in the near future to talk about this exciting proposal. If you have any questions, please don't hesitate to contact me.

Sincerely,

Laurence Shaffer
Town Manager

Enclosures: **Attachment 1:** Letter from Joel Bard to Laurence Shaffer, November 16, 2009 *University of Massachusetts Electricity Generation – Exchange of Services*
Attachment 2: Chart – *Review of Electricity Usage, Cost and Rate, The Town of Amherst Waste Water Treatment Plant, August 10, 2009 – Draft 3*
Attachment 3: *UMass Water and Sewer Consumption and Billing Analysis FY 04 – FY 09*

cc: Tom Milligan, Executive Vice Chancellor, University Relations, UMass
Richard H. Conner, Executive Director, Government and Community Relations, UMass
John Musante, Assistant Town Manager/Finance Director
Guilford Mooring, Superintendent, Department of Public Works
Bob Pariseau, Director, Water Resources, WW Treatment Plant

KOPELMAN AND PAIGE, P.C.
The Leader in Municipal Law

101 Arch Street
Boston, MA 02110
T: 617.556.0007
F: 617.654.1735
www.k-plaw.com

November 16, 2009

Joel B. Bard
jbard@k-plaw.com

Mr. Laurence Shaffer
Town Manager
Amherst Town Hall
4 Boltwood Avenue
Amherst, MA 01002

Re: University of Massachusetts Electricity Generation – Exchange of Services

Dear Mr. Shaffer:

You have requested an opinion regarding regulatory provisions which might govern a proposed agreement between the Town and the University of Massachusetts at Amherst ("UMass"). Specifically, I understand that the Town seeks to give UMass a credit on its wastewater service fees in exchange for UMass supplying electricity from its cogeneration plant to the Town's wastewater treatment plant.

In my opinion, it is not clear if the proposed agreement would require regulation by the Department of Public Utilities ("DPU") under DPU or other state regulations. However, based on conversations with the DPU, it appears that it would invoke jurisdiction over the proposed agreement, thereby subjecting UMass to regulation, including licensure requirements as an electric supplier.

Under Department of Public Utilities Regulations ("DPU Regulations"), there are limitations and requirements which pertain to the distribution of electricity by distribution companies, competitive suppliers and electricity brokers. 220 CMR 11.00. These Regulations appear to apply only to entities that provide electricity for residential use or to "retail customers." The Regulation defines "retail customer" as "a customer located in Massachusetts that purchases electricity for its own consumption and not for resale in whole or in part." 220 CMR 11.00. The question here would be whether the Town would be viewed as "purchasing" electricity under the proposed arrangement.

In addition, there are Attorney General Regulations ("AG Regulations"), as set forth in 940 CMR 19.00, which also specify the limits of the sale of electricity to consumers. The AG Regulations define a "competitive generation service" as "the generation or procurement of electricity for a consumer by a competitive supplier, at a price which is not regulated by the [DPU]." 940 CMR 19.03. As such, these Regulations, like the DPU Regulations, are aimed at protecting Massachusetts consumers from unfair or deceptive acts or practices. The reference to a "competitive supplier" may not apply here, as I understand that the UMass cogeneration plant only serves UMass facilities. It is, therefore, my opinion that the AG Regulations do not appear applicable to the proposed arrangement.

We have contacted the DPU to confirm our research and conclusions. While we believe there are some unanswered questions under the regulations, as discussed above, DPU has indicated that it believes it would have jurisdiction over the proposed agreement between the Town and UMass. According to DPU, under the proposed agreement, DPU would consider UMass a "supplier" of electricity and the Town would meet the definition of "a retail customer." Under this classification, according to DPU, UMass would be required to fill out a "supplier" application prior to entering the proposed agreement. This application has a $100 filing fee and would take several weeks for DPU to review. The application also requires an annual renewal once it is initially approved by DPU. DPU has indicated that it does not believe that the application process would be onerous, particularly if UMass provides specific details of the limited scope of the proposed arrangement.

To discuss this matter further, DPU has proposed a conference call with UMass, as well as representatives from the Town. Based upon our conversations with DPU, it appears that the Department has specific questions about the generator and transmission line infrastructure, as well as the details regarding the transmission of electricity from the campus to the Town facility.

Please let me know how you would like to proceed with this issue. If you have any questions, please do not hesitate to contact me or my colleague, Attorney Janelle Austin.

Very truly yours,

Joel B. Bard

JBB/JMA/rlf
386541V3/AMHR/0001

Draft 3

REVIEW OF ELECTRICITY USAGE, COST AND RATE
THE TOWN OF AMHERST
WASTE WATER TREATMENT PLANT

August 10, 2009

Fiscal Year	KW Used	Rate	Cost
'09	1,330,154	.15053	$200,228.60
'08	1,256,752	.14120	$177,447.95
'07	1,227,254	.13517	$165,885.08

The University can produce electricity at its new cogeneration plant at $.045 per Kilowatt. At $.045 per Kilowatt, the Fiscal Year 2009 electricity bill for the Wastewater Treatment Plant would have been $59,856.93 or a reduction of $140,371.70. My proposal is that the Town would receive free electricity from the University in exchange for a sewer credit of $100,000.00. The University would not receive cash for the electricity but would simply barter electricity for the sewer service credit. Fundamentally, the University would receive a sewer credit worth $100,000.00 in exchange for electricity it can produce for $59,856.93 or less given that the last unit of electricity produced costs less than the first. The Town would eliminate a $200,228.60 electricity bill at a cost of $100,000.00 in sewer services. The University would further benefit by reducing the total Sewer Budget by approximately $100,000.00 of which it pays 35% or $35,000. Both would eliminate a major cost and provide a commodity or service each has significant resources to produce. Both the Town and University preserve cash, the item that is the most in demand.

	Cost	Benefit
Town	**$100,000 Sewer Credit**	**Drop 200K Electricity Bill**
University	**$59,856 Electricity Costs**	**$100,000. Sewer Credit** **$35,000. Savings in Sewer**

UMass Water and Sewer Consumption and Billing Analysis FY 04 - FY 09

Updated 8/14/2009

Fiscal Year	Water Consumption cu ft	Unmetered Water 12/05-12/06 *	Total Water Consumption cu ft	Percent Change	Cost *** of Water	Percent Change	Rate	Percent Change	Cost of Sewer	Percent Change	Rate	Percent Change	Total Cost Water and Sewer	Percent Change
2004	59,227,600		59,229,604		$ 1,300,790		2.00/2.10/2.20		$1,026,973		1.95		$ 2,327,763	
2005	50,948,600		50,950,605	-14%	$ 1,112,074	-15%	2.00/2.10/2.20	0%	$ 900,600	-12%	2.40	23%	$ 2,012,674	-14%
2006	38,331,900	2,156,316	40,490,222	-21%	$ 893,353	-20%	2.40	9.1%	$ 926,059	3%	2.40	0%	$ 1,819,412	-10%
2007	29,823,200	1,616,584	31,441,791	-22%	$ 787,100	-12%	2.40	0%	$ 835,291	-10%	3.00	25%	$ 1,622,390	-11%
2008	37,209,500		37,211,508	18%	$ 1,084,056	38%	3.00	25%	$1,114,630	33%	3.00	0%	$ 2,198,686	36%
2009	40,493,000		40,495,009	9%	$ 1,290,442	19%	3.20	7%	$1,244,796	12%	3.10	3%	$ 2,535,238	15%

*

	12/2005 - 6/2006	7/2006 - 11/2007
This billing error was due to an equipment	3,568,500	2,825,700
malfuction. The radio transmitter located on	1,736,200	2,761,100
the meter in the underground meter vault	2,644,100	3,155,400
failed to transmit an accurate signal to the	2,647,000	3,021,500
meter reading logging device.	3,081,000	3,027,000
The correct reading was taken from the	3,225,300	
meter itself and the transmitter was repaired.	2,826,800	
	19,728,900	14,790,700
% of Total (1)	57%	43%

1) Based on Total UMass usage for the time of unmetered water used.

	Total	FY 06	FY 07
Unmetered Consumption	3,772,900	2,156,316	1,616,584
Dollars Total	$ 181,207	$ 103,565	$ 77,642
Water	$ 90,658	$ 51,814	$ 38,844
Sewer	$ 90,550	$ 51,752	$ 38,798

Effluent Water

Fiscal Year	Consumption cu ft	Cost
2006	7,073,080	$ 35,365
2007	7,338,414	$ 36,692
2008	7,701,666	$ 38,508
2009	8,642,910	$ 43,215

*** Includes effluent water for FY 06, FY 07 and FY 08

UMass Water Bills as a Percentage of Total Billed

	Total Town	Total UMass	Umass %
2004	$2,936,633	$1,300,790	44.3%
2005	2,914,638	1,112,074	38.2%
2006	2,628,812	893,353	34.0%
2007	2,921,743	787,100	26.9%
2008	3,800,510	1,084,056	28.5%
2009	3,925,726	1,290,442	32.9%

UMass Sewer Bills as a Percentage of Total Billed

	Total Town	Total UMass	Umass %
2004	$2,450,931	$1,026,973	41.9%
2005	2,445,322	900,600	36.8%
2006	2,807,334	926,059	33.0%
2007	2,992,507	835,291	27.9%
2008	3,516,047	1,114,630	31.7%
2009	3,512,280	1,244,796	35.4%

UMass Water and Sewer Bills as a Percentage of Total Billed

	Total Town	Total UMass	Umass %
2004	5,387,564	$2,327,763	43.2%
2005	5,359,960	2,012,674	37.6%
2006	5,436,146	1,819,412	33.5%
2007	5,914,251	1,622,390	27.4%
2008	7,316,557	2,198,686	30.1%
2009	7,438,006	2,535,238	34.1%